

### **Amendments to the Claims**

This listing of the claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims**

Claims 1-13 (Canceled)

14. (New) An apparatus for monitoring a vehicle compartment, comprising:  
an occupancy sensor for generating a first signal indicative of the compartment being occupied;  
a temperature element for generating a second signal indicative of a vehicle compartment ambient temperature exceeding a preset limit; and  
a logic circuit for generating an alarm signal responsive to the first and second signals being generated during a timed sampling period,  
wherein the timed sampling period is reset and initiated after each simultaneous occurrence of an indication of a closed vehicle door and the second signal being generated.
15. (New) The apparatus of claim 14, wherein the occupancy sensor is activated when the timed sampling period is initiated.
16. (New) The apparatus of claim 14, wherein the timed sampling period is reset and initiated after expiration of a delay period following each simultaneous occurrence of an indication of a closed vehicle door, a vehicle being off, and the second signal being generated.
17. (New) The apparatus of claim 14, wherein the occupancy sensor is energized and communicatively coupled to an occupant restraint control system when a vehicle is off.

18. (New) The apparatus of claim 14, wherein the occupancy sensor is energized and communicatively coupled to an occupant restraint control system when a vehicle is on.

19. (New) The apparatus of claim 14, wherein the timed sampling period ends a preset time after it is initiated.

20. (New) The apparatus of claim 14, further including means for resetting to reset the alarm signal, wherein after the alarm signal is generated, the logic circuit seals-in the alarm signal until interrupted by the means for resetting.

21. (New) A system for monitoring a vehicle having a compartment, comprising:

an occupancy sensor for sensing whether the compartment is occupied;

a temperature sensor for measuring a vehicle compartment ambient temperature;

a processor connected to the occupancy sensor and the temperature sensor to determine whether to initiate an alarm based upon information received from the occupancy and temperature sensors; and

an alarm component connected to the processor for producing an audible alarm when initiated by the processor,

wherein the processor includes a timed sampling period that is reset and initiated after each simultaneous occurrence of the occupancy sensor indicating the vehicle is occupied and the temperature sensor indicating a temperature exceeding a preset limit.

22. (New) The system of claim 21, wherein the compartment is a trunk.

23. (New) The system of claim 21, further including an ignition sensor to indicate an on/off condition of the vehicle and wherein the processor includes a timed sampling period that is reset and initiated after each simultaneous occurrence

of the occupancy sensor indicating the vehicle is occupied, the ignition sensor indicating that the vehicle is off, and the temperature sensor indicating a temperature exceeding a preset limit.

24. (New) The system of claim 21, further including a vehicle door sensor to indicate an open/closed condition of a vehicle door and wherein the processor includes a timed sampling period that is reset and initiated after each simultaneous occurrence of the occupancy sensor indicating the vehicle is occupied, the vehicle door sensor indicating that a vehicle door is closed, and the temperature sensor indicating a temperature exceeding a preset limit.

25. (New) The system of claim 21, wherein the occupancy sensor senses whether a seat within the compartment is occupied.

26. (New) The system of claim 21, further comprising a means for testing the system by generating a set of conditions that will cause the processor to initiate the audible alarm.

27. (New) A method of monitoring a vehicle having a compartment, comprising:  
generating a first signal indicative of the compartment being occupied;  
generating a second signal indicative of a vehicle compartment ambient temperature exceeding a preset limit; and  
generating an alarm signal responsive to the first and second signals being generated during a timed sampling period,  
wherein the timed sampling period is reset and initiated after each simultaneous occurrence of an indication of a closed vehicle door and the second signal generated.

28. (New) The method of claim 27, further including activating at least one occupancy sensor when the second signal is generated.

29. (New) The method of claim 27, further including resetting the timed sampling period when the vehicle is indicated as being on.
30. (New) The method of claim 27, further including resetting the timed sampling period when a vehicle door is indicated as being open.
31. (New) An apparatus, comprising:  
an occupancy component for generating a first signal indicative of a vehicle compartment being occupied;  
a temperature component for generating a second signal indicative of a vehicle compartment ambient temperature exceeding a preset limit;  
a logic component for generating an alarm signal responsive to the first and second signals being generated; and  
a delay component that delays the generation of the alarm for a period of time upon an indication of a vehicle door opening.
32. (New) The apparatus of claim 31, wherein at least two of the occupancy, temperature, logic, and delay components are combined in a single electrical circuit.
33. (New) The apparatus of claim 31, wherein the logic component is enabled in response to the second signal being generated.
34. (New) The apparatus of claim 31, wherein the logic component generates the audible alarm signal responsive to the first and second signals being generated during a timed sampling period.
35. (New) The apparatus of claim 34, wherein the timed sampling period is expired, the occupancy sensor is disabled.
36. (New) The apparatus of claim 34, wherein the timed sampling period is initiated when the second signal is generated.

37. (New) The apparatus of claim 34, wherein the timed sampling period is ended if the period ends without the simultaneous occurrence of an indication of a closed vehicle door and the second signal being generated.

38. (New) An apparatus for monitoring a vehicle compartment, comprising:  
an occupancy component for generating a first signal indicative of the compartment being occupied;  
a temperature component for generating a second signal indicative of a vehicle compartment ambient temperature exceeding a preset limit; and  
a logic component for generating an audible alarm signal responsive to the first and second signals being generated during a timed sampling period,  
wherein the timed sampling period is reset and initiated after each simultaneous occurrence of an indication of a closed vehicle door and the first and the second signals being generated.

39. (New) The apparatus of claim 38, wherein the temperature component generates a second signal when the vehicle compartment ambient temperature exceeds a high temperature limit.

40. (New) The apparatus of claim 38, wherein the temperature component generates a second signal when the vehicle compartment ambient temperature exceeds a low temperature limit.